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ENTOMOLOGY.—*New tabanid flies of the tribe Merycomyiini*. ALAN STONE, U. S. Bureau of Entomology and Plant Quarantine.

The tribe Merycomyiini (Diptera) was proposed by Philip (Can. Ent. 73: 4. 1941) to include the single genus *Merycomyia* Hine, 1912. This genus contains two described species from eastern United States, *M. mixta* Hine and *M. whitneyi* (Johnson). The purpose of the present paper is to describe from the collection of the U. S. National Museum two new species of *Merycomyia* and a new genus and species in the tribe.

The tribe Merycomyiini falls into the subfamily Pangoniinae because the hind tibiae each bear a pair of spurs, although in the genus *Merycomyia* these are reduced in size. The tribe is separated from other members of the Pangoniinae by having only three flagellar segments in the antenna.

Merycomia haitiensis, n. sp.

Figs. 1a-c

Predominately brown species of medium size; frons broad, distinctly narrowed above.

Female: Length 17 mm, wing 14.5 mm. Head grayish brown with darker brown hairs. Frons

as high as width at lower margin of eyes; width at vertex about 0.8 width below. Eyes with dense, short hair, when relaxed uniformly green. Ocelli on a prominent tubercle, the hairs behind the tubercle somewhat stouter, curving forward: frontal callus diamond-shaped, about 0.4 width of frons; a very slender darker line extends dorsally, about halfway to ocelli. Subcallus distinctly swollen, yellowish brown, this and the upper part of genae without hairs; a distinct median groove from lower angle of callus to interantennal area. Genae and clypeus with long dark hair. Antenna: Scape and pedicel both grayish brown, short, stout, with long black hairs; flagellum orange brown, with a few short hairs; first segment about twice as long as broad, the dorsal margin nearly straight, the ventral margin distinctly convex; second and third segments subequal, the third tapering. Palpus short and stout, the first segment subglobular, the second swollen, and curved to an acute apex; both with long hairs. Proboscis less than 1 mm long, the labellae large. Dorsum of thorax reddish brown and grayish, subshining, the gray forming five narrow stripes, the outermost one on each side

dividing just behind the transverse suture; humeri yellowish; sides of scutellum paler than middle; pleura brown; hairs of thorax dark brown to blackish. Halteres light brown. Wings pale brown all the veins broadly margined with dark brown, venation unmodified. Legs uniformly yellow-brown, with brown hairs; hind tibial spurs small but distinct, dark. Abdomen dark brown, the sides of segment one and basal half of tergite four grayish brown; hairs mostly blackish brown, with some admixture of paler hairs.

Holotype, female, U.S.N.M. no. 61675.

Type locality: Haitien. (This is presumably Cap Haitien on the north coast of Haiti.)

The only other data on this specimen are "June 25/28" and the number 5. The collector is unknown. The shape of the frons and frontal callus distinguish this from all other known species of the genus.

Merycomyia brunnea, n. sp.

Figs. 2a-c

Small for the genus; the entire body, pilosity, and wings uniformly brown.

Female: Length 12 mm, wing 11.5 mm. Eyes bare, when relaxed uniformly green. Frons twice as high as width across lower margin at inner angles of eyes, very slightly narrowed above. Ocelli prominent, yellow, each one narrowly ringed with blackish; frontal callus about two-thirds width of frons, slightly wider than high, with a short, acute dorsal projection that merges into a narrow groove reaching nearly to ocelli; the frontal callus very weakly shining, scarcely differentiated from the rest of the frons in this respect. Subcallus slightly protuberant, pollinose, without hairs. Antenna: Scape short, stout, triangular in profile, the angles rounded; pedicel short, stout, somewhat narrowed above; first flagellar segment oval in profile, slightly longer than broad; second slightly broader than long; third twice as long as broad, tapering; scape, pedicel, dorsum of first flagellar segment, and last two flagellar segments with hair. Palpus short and stout, the second segment about twice as long as broad, tapering to a blunt apex and with long hairs. Proboscis very short, the labella not exceeding palpi. Genae slightly swollen, with long brown hair. Thorax, abdomen, halteres, and legs entirely brown, with brown hair; thorax with very thin pollen; abdomen distinctly shining. Wing almost uniformly brown, the anal cell

slightly paler, the stigma slightly darker; wing venation unmodified. Tibial spurs not as long as some of the adjacent hairs.

Holotype, female, U.S.N.M. no. 61676.

Type locality: New Smyrna Beach, Fla.

The single specimen was collected by C. M. Jones, July 20, 1951, from grass. Its small size and uniformly brown color readily separate it from the previously described species, as well as the one described above.

A KEY TO THE FEMALES OF THE GENUS *MERYCOMYIA*

1. Frons more than twice as high as width at lower margin; frontal callus a denuded area tapering above and extending nearly to ocellar tubercle..... 2
- Frons not more than twice as high as width at lower margin; frontal callus much shorter, scarcely higher than wide..... 3
2. Abdominal tergites 4 and 5 each with a pair of prominent white-pollinose patches
whitneyi (Johnson)
- Abdominal tergites 4 and 5 without prominent white patches..... *mixta* Hine
3. Frons broad and distinctly narrowed above; larger species, the length 17 mm
haitiensis, n. sp.
- Frons narrower, with nearly parallel sides; smaller species, the length 12 mm
brunnea, n. sp.

Asaphomyia, n. gen.¹

Small, rather stout, dark. Head very short. Ocelli on a very prominent tubercle in both sexes. Eyes nearly bare. No frontal callus in female. Antenna with scape and pedicel short; first flagellar segment short and stout, the second and third very slender and the third much longer than the second. Palpus stout, densely haired. Proboscis very short. Wing rather broad; vein R₄ with a stump, the venation otherwise unmodified. Hind tibial spurs small, but distinct.

Type of genus: *Asaphomyia texensis*, n. sp.

Asaphomyia texensis, n. sp.

Figs. 3a-c

Female: Length 8 mm, wing 7.5 mm. Almost uniformly dark brown, the head and thorax tinged with grayish, the abdomen darker, subshining. Frons about 1.5 times as high as width below, at vertex about three-fourths as wide as below. Ocelli very prominent on a nearly black, shining tubercle, bearing short dark hairs posteriorly; hairs on frons sparse, short. Eyes with a few short hairs, when relaxed uniformly green.

¹ From *asaphos*, uncertain, baffling, obscure + *myia*, fly.

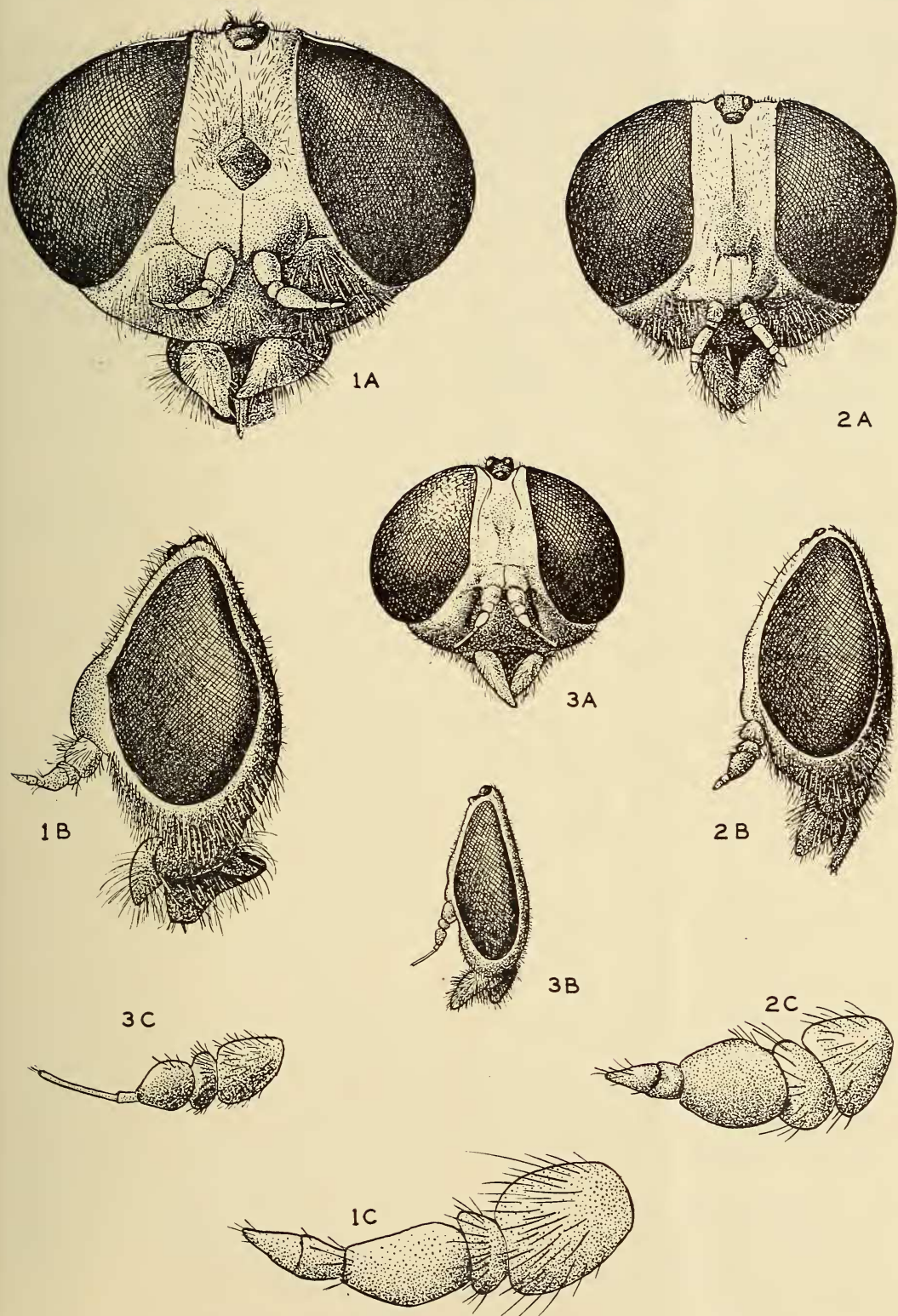


FIG. 1.—*Merycomyia haitiensis*, n. sp.: a, Front view of head; b, side view of head; c, antenna.
 FIG. 2.—*Merycomyia brunnea*, n. sp.: a, Front view of head; b, side view of head; c, antenna.
 FIG. 3.—*Asaphomyia texensis*, n. sp.: a, Front view of head; b, side view of head; c, antenna. (Drawings by Sally D. Kaicher.)

No frontal callus but a pair of curved grooves, deepest and narrowest above, weakly outline a central raised area; subcallus small, flat, with a median groove and without hairs. Antenna: Scape and pedicel small, dark brown, with short dark hairs; first flagellar segment small, nearly round in profile, the extreme base slightly paled; second and third flagellar segments straw yellow, the second segment very short, the third long, narrowest at base, with a few pale hairs at tip. Clypeus and genae dark brown, with black hair. Palpus short, stout; second segment distinctly longer than first, curved and tapering distally. Proboscis very short, the palpi extending well beyond the labellae. Thorax brown, the dorsum tinged with gray, but with no stripes. Halteres brown. Wings brown, somewhat darker along anterior margin; vein R_4 with stump parallel to vein R_{4+5} . Legs dark brown with concolorous hair; hind tibial spurs short but distinct. Abdomen stout, dark brown, subshining.

Male: As in female except: Length 9 mm;

head large, holoptic, the facets above level of antennae distinctly enlarged; ocelli on an even more prominent tubercle. Abdomen somewhat tapering posteriorly. Hind tibial spurs slightly longer.

Holotype, female, paratype male: U. S. Nat. Mus. no. 61677; paratypes, 2 females, 2 males, American Museum of Natural History.

Type locality: Columbus, Tex.

The type bears no further data. The male in the U. S. National Museum was collected at Victoria, Tex., on May 3, 1913, by Mitchell and Coad. The two pairs in the American Museum of Natural History, lent me by C. H. Curran, were collected at Weser, Goliad County, Tex., May 11, 1952, by Cazier, Gertsch, and Schrammel. The generic name was suggested to M. D. Leonard in 1921 by E. A. Schwartz. At that time the family position of the species was very uncertain, but it is quite evidently closely related to *Merycomyia* in spite of its small size and unusual antennae.

ZOOLOGY.—*A new genus of bonelliid worms (Echiuroidea)*. WALTER K. FISHER.

Associate in Zoology, Smithsonian Institution. (Communicated by Fenner A. Chace, Jr.)

The new genus and species described herein belongs in the phylum Echiuroidea, order Echiuroina, family Bonelliidae, and was taken from the depths of the central lagoon of Onotoa, Gilbert Islands, by Dr. P. E. Cloud, Jr., on August 25, 1951.

Achaetobonellia, n. g.

Diagnosis.—Differing from typical *Bonellia* in the absence of setae; in the presence of a thick-walled bulbous expansion of the neck of the nephridium between the subbasal nephrostome and body wall, functioning as a specialized androecium; in having an extraordinarily long segment of the gut between the mouth and point of attachment of the neurointestinal blood vessel to gut; siphon apparently rudimentary; anal vesicles numerous. Type, *Achaetobonellia maculata*, n. sp.

Achaetobonellia maculata, n. sp.

Description.—Body form a broad ellipsoid, 45 mm long; body wall thin, translucent; skin smooth with slight rugosities at ends of body; skin marked by small dark brown spots, most numerous on proboscis. The latter is 95 mm

long and about 6 mm broad when flattened; each terminal branch is about 20 mm long. The mouth is inconspicuous, in the base of proboscis the margins of which do not fuse to form a definite lower lip. The nephridiopore is very inconspicuous.

The alimentary canal is very long, about 400 mm, the first 150 mm being the segment between mouth and attachment of neurointestinal blood vessel (B^3). Pharynx subspherical, thin-walled, distended by white coral mud. A rather short esophagus follows, beyond the end of which the entire gut is filled with chalk-white pellets. There is no clear differentiation into gizzard and stomach. At certain places on the badly preserved intestine traces of what may be a rudimentary siphon can be seen, but there is not observable a definite beginning at or near the attachment of the neurointestinal vessel as is normal in bonelliids. A portion of the intestine just anterior to the small, very thin-walled cloaca is enlarged but there is no trace of a ciliated groove such as is obvious in the "hind gut" of *Nellobia eusoma* (Fisher, 1946, pl. 29, fig. 3).

The anal vesicles are rather numerous